VEGETATION OF A GALAPAGOS ISLAND BEFORE AND AFTER AN ICE AGE

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A core from a crater lake on Isla San Cristóbal (Chatham Island) reaches a time shown by radiocarbon dating to be more than 48,000 years Before Present. A continuous pollen record of the last 10,500 years is preserved in the top three meters of sediment. Changes in the vegetation of the island are recorded for this period. But these changes represent alterations in the proportions of taxa present rather than invasions or extinctions.—The flora of the island did not alter much.

From 10,500 to more than 48,000 years B.P., the lake held no water, which seems to suggest that the climate was much drier than now. In ancient times (possibly during the last interglacial period) the lake did hold water. Peculiarities of its setting, a closed basin in the clouds, suggest that the climate of this early wet period was similar to that of postglacial times; but the pollen assemblages of the ancient lake sediments show striking differences to those of the postglacial period. In addition, a different species of *Azolla* occupied the lake and *Myriophyllum,* not known from the lake in postglacial time, was abundant. The two lake episodes were apparently separated by a climatic catastrophe sufficient to effect widespread extinction.

Although the pollen spectra of the ancient times were different from those of the postglacial period, all of the taxa represented (except the water plants) can be found in Galapagos surface samples from places other than near the modern lake. Since the climates of the two episodes are thought to be similar, this suggests that the vegetation of each episode has been much influenced by the fortunes of dispersal in the periods of early colonization.

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